

Appln. Serial No. 10/791,414
Amendment Dated December 8, 2008
Reply to Office Action Mailed August 6, 2008

REMARKS

In the Office Action dated August 6, 2008, claims 1-7 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,976,177 (Ahonen) in view of U.S. Patent No. 7,020,464 (Bahl); claims 10, 11, 20, and 21 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ahonen in view of U.S. Patent No. 6,108,300 (Coile); and claims 12, 14, 17, and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ahonen in view of U.S. Patent No. 6,173,312 (Atarashi) .

Claims 1-7 and 9 have been cancelled, without prejudice, to render the rejection of those claims moot.

Independent claim 10 was erroneously rejected as obvious over Ahonen and Coile.

To make a determination under 35 U.S.C. § 103, several basic factual inquiries must be performed, including determining the scope and content of the prior art, and ascertaining the differences between the prior art and the claims at issue. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459 (1965). Moreover, as the U.S. Supreme Court held, it is important to identify a reason that would have prompted a person of ordinary skill in the art to combine reference teachings in the manner that the claimed invention does. *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385 (2007).

Claim 10 recites a method for maintaining secure network connections, comprising:

- duplicating, at a third network element, a security association associated with a secure network connection between a first network element and a second network element, wherein a lookup of the security association associated with the secure network connection is not dependent on any destination address; and
- in response to detecting failure of the second network element, replacing the second network element with the third network element in the secure network connection with the first network element, wherein the secure network connection between the first network element and the third network element is based on the duplicated security association.

It is respectfully submitted that even if Ahonen and Coile could be hypothetically combined, the hypothetical combination of the references would not teach or hint at duplicating a security association associated with a secure connection between a first network element and a second network element, at a third network element. Also, the hypothetical combination of the

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references would not teach or hint at replacing the second network element with the third network element in the secure network connection with the first network element, where the secure network connection between the first network element and the third network element is based on the **duplicated** security association.

The Office Action cited ¶¶ [0047] and [0088] of Ahonen as purportedly disclosing the “duplicating” element of claim 10. 8/6/2008 Office Action at 5. Note, however, that ¶¶ [0047] and [0048] of Ahonen teach that a first security association is established between a mobile host and the firewall, and then the process is repeated to negotiate a **separate** security association between the mobile host and the correspondent host. Paragraph [0088] of Ahonen similarly teaches establishing security associations (note **plural** sense) negotiated between the mobile host and the firewall, and between the mobile host and the correspondent host. Thus, Ahonen specifically and explicitly teaches the establishment of **separate** security associations, which is contrary to the subject matter of claim 10, which recites **duplicating** a security association at a third network element, where the security association is associated with a secure network connection between a first network element and a second network element.

For at least this reason, the obviousness rejection of claim 10 is defective.

Moreover, the Office Action conceded that Ahonen fails to disclose the “replacing” element of claim 10. 8/6/2008 Office Action at 6. The Office Action cited Coile, and specifically, to Fig. 1 and the Abstract of Coile. Coile refers to transferring a network function from a primary network device to a backup network device when it is detected that the primary network device has failed. However, this has nothing to do with the subject matter of claim 10, which refers to replacing the second network element with a third network element in the secured network connection with the first network element, where the secure network connection between the first network element and the third network element is based on the **duplicated** security association. Nowhere in Coile is there any hint provided of replacing one network element with another network element in a secure network connection and then maintaining the secure network connection based on a duplicated security association.

In view of the foregoing, even if Ahonen and Coile could be hypothetically combined, the hypothetical combination of references would not have led to the claimed subject matter.

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Moreover, no reason existed that would have prompted a person of ordinary skill in the art to combine the teachings of Ahonen and Coile. As discussed above, Ahonen specifically teaches that separate security associations are established between the mobile host and the firewall, and between the mobile host and a correspondent node. This would have led a person of ordinary skill in the art away from **duplicating** a security association at a third network element in the manner recited in claim 10. Moreover, Coile provides absolutely no hint whatsoever that its failover mechanism would maintain a secure network connection that is based on a **duplicated** security association. In view of the foregoing, it is clear that a person of ordinary skill in the art would have found no reason to combine the teachings of Ahonen and Coile to achieve the claimed invention.

Therefore, it is respectfully submitted that the obviousness rejection of claim 10 is in error.

Independent claim 12 was rejected as purportedly obvious over Ahonen and Atarashi. Claim 12 recites a method for maintaining secure network connections, the method comprising:

- configuring a plurality of security gateways such that a lookup of security associations is not dependent on any destination address; and
- sharing at least one security association among the plurality of security gateways.

In the rejection, the Office Action made the erroneous observation that a security association of Ahonen is shared between the firewall, and the mobile and correspondent hosts. As taught in ¶ [0048] of Ahonen, **separate** security associations are maintained between the mobile host and firewall, and between the mobile host and the correspondent node. Also, as conceded by the Office Action, Ahonen does not disclose sharing a security association among a plurality of **security gateways**. As purportedly disclosing this feature, the Office Action cited Atarashi. 8/6/2008 Office Action at 7-8. Specifically, the Office Action pointed to column 2, line 43-column 3, line 19 of Atarashi. However, nowhere in this passage of Atarashi is there any hint of sharing a security association among a plurality of security gateways. The Office Action identified the multiple routers 101, 111, 121 of Atarashi – however, the problem with citing these routers is that there is absolutely no hint given in Atarashi of sharing a security association among such routers.

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Moreover, it is clear that a person of ordinary skill in the art would not have been prompted to combine the teachings of Atarashi and Ahonen, since Ahonen specifically teaches that separate security associations are established between different pairs of nodes, which would have led a person of ordinary skill in the art away from sharing a security association among a plurality of security gateways. In view of the foregoing, it is respectfully submitted that the obviousness rejection of claim 12 is in error.

Independent claim 22 is also similarly non-obvious over Ahonen and Atarashi. Note that claim 22 recites a transceiver (of a first security server) to receive information relating to **at least one security association** of a secure network connection between a mobile client and second security server. Claim 22 also recites a processor module (of a first security server) to communicate with the mobile client using **the** at least one security association over the secure network connection between the first security server and the mobile client. Thus, claim 22 is very clear that the secure network connection between a mobile client and the first security server uses the same security association of the secure network connection between the mobile client and the second security server.

The above combination of features is clearly not disclosed or hinted at by Ahonen and Atarashi. Therefore, the obviousness rejection of claim 22 is also defective.


Dependent claims, including newly added dependent claims 23-25, are allowable for at least the same reasons as corresponding independent claims. Moreover, in view of the allowability of base claims over the cited references, the obviousness rejections of dependent claims have also been overcome.

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Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (NRT.0124US).

Respectfully submitted,

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